

SUPPLEMENT TO REPORT NO. 25X1

THIS IS UNEVALUATED INFORMATION

~~CONFIDENTIAL~~
~~SECRET/CONTROL~~ - U.S. OFFICIALS ONLY

CENTRAL INTELLIGENCE AGENCY

25X1

- 2 -

Coal dust from Lützkendorf distributed as follows

a) Coal drying department	6,375 t
b) Boiler House	1,210 t
c) Gengas	36,546 t
d) Supply in bunkers on 31.12.49	100 t
	<u>44,231 t</u>

B. Gas Production1) Gengas

Production	275,828,600 Nm ³
Addition of Endgas, gas oil and Sygas	67,908,000 "
	<u>343,736,600 Nm³</u>

Distribution of Heaving Gas as follows:

a) Plant #1	267,961,250 Nm ³
b) Plant #2	9,390,000 "
c) Plant #4	1,900,200 "
d) Plant #5	15,023,100 "
e) Power and heat	7,547,300 "
f) Torches and losses	41,914,750 "
Total consumption	<u>343,736,600 Nm³</u>

2) Sygas

Production	<u>198,060,000 Nm³</u>
------------	-----------------------------------

Distribution as follows:

a) Plant #2	190,209,000 Nm ³
b) Heating, torches and losses	7,852,000 "
	<u>198,060,000 Nm³</u>

A. Plant #2

A. Sygas for furnace shop	176,817,000 Nm ³
B. Production of Primary Products	13,752,25 t
C. Production of by-products	3,420.59 t
D. Output of Endgas	69,381,000 Nm ³

B. Plant #3 (air analysis)A. Nitrogen

Production	<u>69,192,250 Nm³</u>
------------	----------------------------------

Distribution as follows:

a) Group A	37,712,900 Nm ³
b) Others	1,844,700 "
c) Torches and losses	29,634,650 "
	<u>69,192,250 Nm³</u>

B. Oxygen

Production	<u>18,220,070 Nm³</u>
------------	----------------------------------

Distribution as follows:

a) Group A	15,344,332 Nm ³
b) Others	492,986 "
c) Torches and losses	22,382,752 "
	<u>18,220,070</u>

~~CONFIDENTIAL~~~~SECRET/CONTROL~~ - U.S. OFFICIALS ONLY

CENTRAL INTELLIGENCE AGENCY

- 3 -



4. At the beginning of 1949, in Plant #1, coal drying installations 5a and 5c, generator gas production installations 3n and 3t and sygas installations 3c and 3d were functioning. Plant #2 was functioning well and in the air analysis installation, the two O₂ apparatuses 1 and 3 were in action.
5. After overcoming great difficulties in procuring material it was possible to put coal drying installation 5b in action on 16 February 1949. Coal drying installations 5a and 5c had to undergo considerable repairs. The latter is still being repaired.
6. The newly-constructed generator gas installation 3k started functioning on 15 July 1949. From the end of August until the end of October, installation 3n was being repaired, while installation 3t was functioning until 4 December 1949.
7. Sygas installation 3c was undergoing repairs from 6 January to 31 March 1949 and from 7 May to 27 July 1949. Installation 3d was undergoing repairs from 31 March to 22 May 1949 and from 1 September to 28 October 1949. On 5 December 1949, it had to be put out of action for repairs.
8. Plant #2 functioned throughout the year without any major disturbances. The blower to increase pressure was started in August in Building 120 and the purification plant began to function in Building 12. A gas cooler and a heater were installed in Building 15, thus increasing to a great extent the production of gas oil. Synthetic output increased during the last months of 1949.
9. In spite of great difficulties in obtaining basic and raw materials, the target figure for the air analysis installation had been fulfilled on 14 December 1949. Thanks to the hard work and industry of workers, technicians and chemists, the target was, in fact, exceeded, despite the long delay in October and November, caused by the failure of the large air compressor.
10. Through improved methods in training workers, it was possible to lengthen the lives of plants and machines. Considerable delays were thus avoided and consumption of coal was reduced from 2,030 Kg RBK/1000 Nm³ Sygas in 1948 to 1605 Kg RBK/1000 Nm³ in 1949. Losses in RBK had dropped 5% by the end of the year. Production of sulphur increased 21.5% in comparison with 1948.
11. Tasks of the main laboratory were as follows:
 - A. Research in routine matters e.g. output of primary products etc.
 - B. Examination of all pipes, boilers and waste water channels.
 - C. Research in fluid gases (Propane and butane) and gases (End-und Restgas).
 - D. Special investigations e.g. faults in connection with gas production, installations, boiler houses etc., research in metal etc.
 - E. Research leading to increased knowledge of primary products.
 - F. Further synthetic research and processing of primary products through cracking.
 - G. Preparation of normal solutions and revival of used up chemicals.
12. Effective laboratory distillation columns have been installed so that it is possible to estimate with great accuracy the composition of products up to a boiling point of about 280°.
13. Failure in the supply of gas hindered synthetic experiments to a considerable extent, although it was possible to establish, among other things, that a mild regeneration of the "Kontakte" was possible by treatment with ammonia. This fact should be of interest in connection with synthetic research and the mechanism of heterogeneous catalyzers.
14. The main laboratory cannot be considered large enough for present requirements. For gas analysis, for instance, it is possible to set up only two

CONFIDENTIAL

SECRET/CONTROL - U.S. OFFICIALS ONLY

~~CONFIDENTIAL~~~~SECRET~~/CONTROL - U.S. OFFICIALS ONLY

CENTRAL INTELLIGENCE AGENCY'

25X1

- 4 -

"Stockapparate" together with the required subsidiary apparatus, and it is therefore impossible to carry out the standard average analysis. Experiments with coal to determine its qualities cannot be carried out in the main laboratory and must therefore be carried out in a plant laboratory. It is planned to obtain larger accommodations in 1950.

15. Laboratory strength on 1 January and 31 December 1949 was as follows:

Chemists	1	1
Technical chemists and		
Laboratory assistants	10	9
Skilled workers	10	4
Unskilled workers	18	24
Mechanics	2	3
Clerks	3	3

16. Analyses in connection with coal supply, coal drying, generator and sygas production, gas cleaning and Fischer-Tropsch synthesis were made in Laboratory I/II. Work included investigation into the coal storage bunker, boiler house and gasometer of Plant #1. Great difficulty was experienced in obtaining the necessary chemicals and apparatus and much improvisation had to be resorted to. The laboratory was also given the task of carrying out an experiment with a view to extracting hydrogen sulphide from muddy sewage. This experiment is considered to have succeeded from the chemical point of view.

~~CONFIDENTIAL~~~~SECRET~~/CONTROL - U.S. OFFICIALS ONLY